

REMARKS

Claims 21-40 are pending in the application.

Claims 21-40 have been rejected.

I. **REJECTION UNDER 35 U.S.C. § 102**

Claims 21-40 were rejected under 35 U.S.C. § 102(b) as being anticipated by Dumas, et al. (US 5,519,773). The rejection is respectfully traversed.

A cited prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single cited prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

For ease of reference, Applicant sets forth below Col. 3, lines 11-67 of Dumas, which the Office Action cites as teaching each and every element of independent Claims 21, 30, 39 and 40:

FIG. 7 shows, in pictorial form, an embodiment of the present invention wherein an ACD system enables agents to handle inbound calls, outbound calls, and callback messages. As shown in FIG. 7, 100 represents a group of inbound and outbound ACD agents which utilize conventional ACD terminals, which ACD terminals utilize conventional telecommunication interconnections, illustrated as connections 110, to PBX 120. As is well known to those of ordinary skill in the art, the ACD terminals may be interfaced to computer systems which contain data bases having information which are displayed at the terminals for use in communicating with inbound callers and with outbound called parties. Further, it is well known to those of ordinary skill in the art that such computer systems obtain information

pertaining to the callers from PBX 120 so as to be able to coordinate the call and the presentation of information relating to the call to the ACD agents.

As shown in FIG. 7, PBX call processing module 130 is conventional and is well known to those of ordinary skill in the art and performs functions such as receiving a telephone call from an inbound caller, placing an inbound telephone call in a queue, connecting an inbound caller or a caller in a queue to an ACD agent, placing an outbound call, and so forth. What is considered new, is the portion of PBX 120 denoted as callback queue 140, inbound call queue 150, outbound call queue 160, list 170 of available ACD agents, priority multiplexor 180, and the manner in which priority multiplexor 180 operates to provide a method to enable inbound and outbound call functions to be performed by one ACD agent. As will be described below, the functions performed in accordance with the present invention are carried out in software which is executed by a processor in PBX 120. This is the preferred embodiment since modern PBXs are comprised of processors which are, in essence, computers which control the operation of the PBX.

Priority multiplexor 180 utilizes an inventive ACS algorithm to define a new parameter, k , which is used as follows. If more than k ACD agents are free, and the inbound call queue is empty, then an outbound call is assigned to a free ACD agent. As a special case, when $k=0$ and no agents are idle, whenever an agent becomes idle, that agent either is given an inbound call out of the inbound call queue (if possible) or is assigned to an outbound call.

FIG. 1 shows, in graphical form, a scenario that helps to illustrate the manner in which the inventive ACS algorithm operates. As shown in FIG. 1, in time frame 200, an ACD agent is free and waiting for an inbound call, the remaining ACD agents are busy dealing with calls. An inbound call arrives at time 210 and the call is assigned to the free agent. Agents finish dealing with calls over time frame 220 until k agents are free. Then, at time frame 230, a call is completed and more than k agents are free. At this time, in accordance with the inventive ACS algorithm, a free agent is assigned to an outbound call. Later, in time frame 240, there are k free agents waiting for an inbound call and the remaining agents are busy dealing with calls. Finally, at time frame 250, an inbound call arrives and it is assigned to a free agent.

Initially, Applicant notes that Dumas describes a system in which a group or pool of agents handle both inbound and outbound calls - and none are assigned to one state or the other (e.g., inbound, outbound). Dumas, Abstract. The calls, either inbound or outbound, are individually assigned to one of the agents within the entire group. Dumas, Abstract, Col. 3, lines 48-50. More

specifically, Dumas describes that when a number of idle agents in the overall group exceeds k , then an outbound call is assigned to an idle agent (any idle agent). Col. 3, lines 48-50. Thus, all agents may handle either inbound or outbound calls, with inbound calls given to idle agents (any idle agent) but with outbound calls given to idle agents (any idle agent) only when the number of idle agents exceeds the number k . In other words, Dumas simply discloses that when the number of idle agents exceeds the number k , then outbound calls are assigned to one (any one) of the idle agents until the number of idle agents is reduced to k . Below k , it appears that no outbound calls are given to the agents for handling.

In contrast, and in general terms, the Applicant's invention assigns agents, within an overall pool of agents, to either a preferred state (e.g., for handling inbound calls) or another state (e.g., for handling outbound calls) based on a sampled call rate. Applicant determines (1) a number of agents that should be assigned to a preferred state (e.g., inbound) based on an expected call rate, (2) a number of agents that actually should be assigned to the preferred state based on a sampled call rate, and (3) a number of agents that should be assigned to the other state (e.g., outbound), i.e., the difference between (1) and (2). After a period of time, the call rate is sampled (at a second time), and depending on this call rate, the number of agents assigned to the preferred state and other state are adjusted if necessary.

Applicant has reviewed the cited portions of Dumas (see above). Nowhere therein is there described a determination of a number of agents for assignment based on an expected call rate. Moreover, Dumas fails to assign agents to either one state or the other (e.g., inbound or outbound) -

Dumas merely assigns calls to idle agents irrespective of any state (or group). Thus, Dumas does not assign agents to a particular state. Additionally, Dumas fails to describe that the assignment of agents (either inbound or outbound) is adjusted based on sampled call rates. Dumas simply assigns outbound calls to any idle agent when the number of idle agents exceeds k . Therefore, Dumas fails to disclose each and every element/feature of the independent Claims 21, 30, 39 and 40 (and their dependent claims) as arranged as they are in the Claims.

Accordingly, the Applicant respectfully requests the Examiner withdraw the § 102(b) rejection of Claims 21-40.

II. CONCLUSION

As a result of the foregoing, the Applicant asserts that the remaining Claims in the Application are in condition for allowance, and respectfully requests an early allowance of such Claims.

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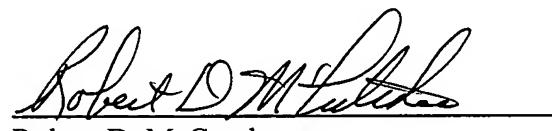
If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at rmccutcheon@davismunck.com.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

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